

Recent News About The ISOLAN Test Unit, Type 1105-0

The software in the Isolan Test Unit has been updated. The prom fitted in your unit has version 2.00 software where as the manual describes version 1.02. The differences are outlined below, along with notes on how to use the additional features.

Additional Power On Diagnostics.

In addition to the power on diagnostics described in your manual on page 3.2 there are now three additional tests which check the hardware. These write out to the display three additional characters, two of which will not normally be visible because they are overwritten quickly. These tests carry out the following checks:

1. The peripheral chips are initialised.
2. The local area network controller chip resets on power up.
3. That interrupts are occurring.

When these have been completed the LCD display will show the following:

```
BICC DATA NETWORKS
<ISOLAN TEST UNIT>
```

Additional Option: Under Packet Contents.

An additional option under the packet contents sub menu allows the user to fill the data part of a MAC frame with the pattern FFFF Hex. This is equivalent to a 10MHz signal when it is manchester encoded. (AAAA or 5555 hex is equivalent to a 5 MHz signal). The 10 MHz signal is useful for generating the worst case harmonic signal contents when carrying out RFI conformance tests.

Promiscuous Mode.

An extra option has been included on the system menu which allows the user to select promiscuous mode. If this option is switched on then the Isolan Test Unit will accept and log all packets on the network regardless of the destination address. This feature is useful for examining the performance of an installed network as corrupted packets due to CRC or Framing errors are logged in addition to those packets which are without error.

Selecting Promiscuous Mode.

After the Isolan Test Unit is powered up press key 4 to select the system option. Press key 6. This selects the promiscuous mode option. You may now press 1 to enable the mode, or 2 to disable. Exit returns to the system menu. The default condition on first applying power is Promiscuous mode disabled. To assess the effect of selecting promiscuous mode refer to the manual and select the option 7; View Counters. With the Isolan Test Unit attached to a live network you will see these counters incrementing on each packet reception.

Improved Performance For ISO Test.

When the ISO test is selected and executed the Isolan Test Unit adds a value to the length field of the MAC frame. Some implementations do not respond to the ISO test if the packet is larger than 64 bytes. The length field parameter added to the MAC frame is now equivalent to the packet length selected by the user with the following modification carried out by the Isolan Test Unit. The CRC (4 bytes), Source address field (6 bytes), destination address (6 bytes) and length field (2 bytes) are subtracted from the length parameter when the packet is built in memory.

Software Issue Banner.

Under System Menu (option 4) the software issue (option 3) will show the revision level of the software in your unit. The changes highlighted in this technical note relate to version 2.